AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0002] with the following amended paragraph:

[0002] The invention relates to an extendible exhaust nozzle bell for a rocket engine of an aircraft or spacecraft. In particular, an extendible exhaust nozzle bell for a rocket engine of an aircraft or spacecraft which comprises a first part featuring a quasi-conical shape with smaller diameter fixedly arranged on a motor of a rocket engine and a second part featuring a quasi-conical shape with greater diameter arranged in a flexible manner with respect to this first part ~~according to the preamble of claim 1~~.

Please replace paragraph [0005] with the following amended paragraph:

[0005] The present invention forms ~~is creates~~ an extendible exhaust nozzle bell with an extension mechanism of the smallest possible mass, that can be constructed as simply as possible, and that operates reliably.

Please replace paragraph [0006] with the following amended paragraph:

[0006] The instant invention provides an extendible exhaust nozzle bell and, in particular, an extendible exhaust nozzle bell for a rocket engine of an aircraft or spacecraft which includes a first part featuring a quasi-conical shape with smaller diameter fixedly arranged on the motor of the rocket engine and a second part featuring a quasi-conical shape with greater diameter arranged in a flexible manner with respect to this first part. Moreover, in a front stowed position the

second part of the exhaust nozzle bell surrounding the first part of the exhaust nozzle bell is located nearer to the rocket motor, and in a rear operating position continuing the shape of the first part it is arranged further away from the rocket motor. Furthermore the exhaust nozzle bell includes an extension mechanism for extending the second part of the exhaust nozzle bell from the stowed position into the operating position. Additionally, the extension mechanism includes several swiveling extension arms distributed over the circumference of the exhaust nozzle bell, and coupled between the first part and the second part of the exhaust nozzle bell, which extension arms are connected in a hinged manner at a first end to a support structure provided on the outside of the first part of the exhaust nozzle bell. Furthermore, the extension arms are arranged on their second end in a displaceable manner with respect to the inside of the second part of the exhaust nozzle bell and can be swiveled while reducing the radial distance of their second end to the first part of the exhaust nozzle bell, so that the second part of the exhaust nozzle bell can be extended in the direction of the rear operating position during swiveling in of the extension arms to the first part of the exhaust nozzle bell following the quasi-conical shape of the second part of the exhaust nozzle bell ~~with the features of claim 1~~.

Please replace paragraph [0007] with the following amended paragraph:

[0007] Advantageous further developments of the extendible exhaust nozzle bell can include the extension arms having a sliding or rolling element on their end

facing the second part of the exhaust nozzle bell, which sliding or rolling element is provided for a sliding or rolling movement with respect to the inside of the second part of the exhaust nozzle bell while swiveling in the extension arms during the extension of the second part of the exhaust nozzle bell. Moreover, the extension arms can be supported on their first end around a hinged axle arranged in the circumferential direction of the exhaust nozzle bell and can be swiveled in a radial plane containing the longitudinal axis of the rocket engine. Furthermore, a first activating device coupled with the extension arms and can be provided for swiveling in the extension arms, and a second activating device coupled with the second part of the exhaust nozzle bell can be provided for moving the same in the longitudinal direction of the rocket engine from the stowed position into the operating position. Additionally the first activating device can contain an actuator and a transport screw driven by the actuator and coupled with the extension arm for a swiveling movement of the same, which transport screw is changeable in its effective length. Moreover, the first activating device can contain an actuator and a tension cable driven by the actuator and coupled with the extension arm for a swiveling movement of the same, and a spring-loaded device acting against the tension of the tension cable on the extension arm. Furthermore, the second activating device can contain an actuator, a rope drum driven by the actuator and a tension cable for a transport of the same wound on the rope drum and coupled with the second part of the exhaust nozzle bell. Moreover, the first and/or second activating device can contain a pivoted collecting ring surrounding the first part of

the exhaust nozzle bell in the circumferential direction that can be driven by an actuator for a rotation of the same, and tension cables which are placed around the collecting ring and are changeable in their effective length during the rotation of the same, and which are coupled with the extension arms or the second part of the exhaust nozzle bell for their activation. Additionally, a central drive can be provided for the collecting ring. Moreover, the extension arms can be embodied as triangular guides tapering from their first end towards their second end. Additionally, guide devices for a longitudinal guiding of the second part of the exhaust nozzle bell on a last part of the extension movement from the stowed position into the operating position can be provided coupled between the first part and the second part of the exhaust nozzle bell. Moreover, the guide devices can contain guide rollers or sliders mounted on the front end of the second part of the exhaust nozzle bell and guide rails mounted on a support structure on the first part of the exhaust nozzle bell to accept and guide the guide rollers or sliders ~~according to the invention are characterized in the dependent claims~~.

Please insert after paragraph [0019] the following four paragraphs:

[0019.1] One aspect of the invention includes an extendible exhaust nozzle bell for a rocket engine of one of an aircraft and spacecraft. The nozzle bell includes a first part, having a quasi-conical shape, fixedly arranged on a motor of the rocket engine and a second, having a quasi-conical shape with a greater diameter than the first part, arranged in a flexible manner with respect to the first part. The second

part having a stowed position in which the second part surrounds the first part and is positioned closer to the motor, and an operating position in which the first part and the second part form a continuous shape and the second part is arranged farther from the motor. The nozzle further includes an extension mechanism structured and arranged to extend the second part from the stowed position to the operating position, the extension mechanism including a plurality of swiveling extension arms distributed over a circumference of the first part, and coupled between the first part and the second part, wherein the extension arms have first and second ends, such that the first ends are hingedly connected to a support structure provided on an outside of the first part. Moreover, the second ends are displaceably arranged with respect to an inside of the second part and configured to be swivelable while reducing a radial distance of the second ends to the first part.

[0019.2] In a further aspect of the invention the second part can be extended in a direction of the operating position during swiveling of the extension arms to the first part and the second ends of the extension arms follow the quasi-conical shape of the second part. Moreover, the extension arms can include one of a sliding and rolling element on an end facing the second part, and the sliding and rolling element can be structured and arranged for a sliding or rolling movement with respect to an inside of the second part while swiveling the extension arms during the extension of the second part. Furthermore, the extension arms can be supported on the first end about a hinged axle arranged in a circumferential

direction and can be configured to be swiveled in a radial plane containing a longitudinal axis of the rocket engine. Additionally, the exhaust nozzle bell can include a first activating device, coupled with the extension arms, structured and arranged for swiveling the extension arms and a second activating device, coupled with the second part, structured and arranged to move the exhaust nozzle bell in the longitudinal direction of the rocket engine from the stowed position into the operating position. Moreover, the first activating device can contain an actuator and a transport screw driven by the actuator and coupled with the extension arm for a swiveling movement of the extension arm to change an effective length. Furthermore, the first activating device can contain an actuator and a tension cable driven by the actuator and coupled with the extension arm for a swiveling movement of the extension arm, and a spring-loaded device acting against a tension of the tension cable on the extension arm. Moreover, the second activating device can contain an actuator, a rope drum driven by the actuator, and a tension cable, the tension cable being wound on the rope drum and coupled with the second part. Additionally, at least one of the first and second activating devices can include a pivoted collecting ring surrounding the first part in the circumferential direction that can be driven by an actuator for a rotation of the collection ring, and tension cables positioned around the collecting ring, the tension cables having a changeable effective length during the rotation of the collecting ring, and which are coupled with the extension arms or the second part. Furthermore, the collecting ring can further include a central drive. Moreover, the

extension arms can be configured as triangular guides tapering from a first end towards a second end. Additionally, guide devices can be structured and arranged for a longitudinal guiding of the second part on a last part of an extension movement from the stowed position into the operating position are coupled between the first part and the second part. Furthermore, the guide devices can include one of guide rollers and sliders mounted on a front end of the second part and guide rails mounted on a support structure on the first part to accept and guide one of the guide rollers and sliders.

[0019.3] Another aspect of the invention includes an exhaust nozzle bell for a rocket engine including a first part fixedly arranged on a motor of the rocket engine, and a second part displaceably coupled to the first part. The second part having a stowed position in which the second part surrounds the first part and is positioned closer to the motor, and an operating position in which the first part and the second part form a continuous shape and the second part is arranged farther from the motor. Moreover, the nozzle can include an extension mechanism structured and arranged to extend the second part from the stowed position to the operating position, the extension mechanism including a plurality of swiveling extension arms, wherein the extension arms have first and second ends. Furthermore, each of the extension arms comprise one of a sliding and rolling element on an end facing the second part, and the sliding and rolling element is structured and arranged for a sliding or rolling movement with respect to an inside of the second part .

[0019.4] In a further aspect of the invention the extension arms can include one of a sliding and rolling element on an end facing the second part, and the sliding and rolling element can be structured and arranged for a sliding or rolling movement with respect to an inside of the second part while swiveling the extension arms during the extension of the second part. Furthermore, the extension arms can be supported on the first end about a hinged axle arranged in a circumferential direction of the exhaust nozzle bell and can be configured to be swiveled in a radial plane containing a longitudinal axis of the rocket engine. Additionally, the exhaust nozzle bell can include a first activating device, coupled with the extension arms, structured and arranged for swiveling the extension arms and a second activating device, coupled with the second part, structured and arranged to move the exhaust nozzle bell in the longitudinal direction of the rocket engine from the stowed position into the operating position. Moreover, the first activating device can contain an actuator and a transport screw driven by the actuator and coupled with the extension arm for a swiveling movement of the extension arm to change an effective length. Furthermore, the first activating device can contain an actuator and a tension cable driven by the actuator and coupled with the extension arm for a swiveling movement of the extension arm, and a spring-loaded device acting against a tension of the tension cable on the extension arm. Moreover, the second activating device can contain an actuator, a rope drum driven by the actuator, and a tension cable, the tension cable being wound on the rope drum and coupled with the second part. Additionally, at least

one of the first and second activating devices can include a pivoted collecting ring surrounding the first part in the circumferential direction that can be driven by an actuator for a rotation of the collection ring, and tension cables positioned around the collecting ring, the tension cables having a changeable effective length during the rotation of the collecting ring, and which are coupled with the extension arms or the second part. Furthermore, the collecting ring can further include a central drive. Moreover, the extension arms can be configured as triangular guides tapering from a first end towards a second end. Additionally, guide devices can be structured and arranged for a longitudinal guiding of the second part on a last part of an extension movement from the stowed position into the operating position are coupled between the first part and the second part. Furthermore, the guide devices can include one of guide rollers and sliders mounted on a front end of the second part and guide rails mounted on a support structure on the first part to accept and guide one of the guide rollers and sliders.

Please replace paragraph [0021] with the following amended paragraph:

[0021] The present invention is further described in the detailed description which follows, in reference to the noted plurality of drawings by way of non-limiting examples of exemplary embodiments of the present invention, in which like reference numerals represent similar parts throughout the several views of the drawings, and wherein:

Figures 1a and 1b show a ~~Figs. 1a) and b) A~~ perspective, partially sectional view of an extendible exhaust nozzle bell of a rocket engine in a stowed position I [[1]] and an operating position II according to a first exemplary embodiment of the invention;

Figure 2 shows an ~~Fig. 2 An~~ enlarged perspective partially sectional partial view of the first exemplary embodiment of the exhaust nozzle bell according to the invention in the stowed position I shown in Fig. 1;

Figure 3 shows a ~~Fig. 3 A~~ perspective, partially sectional view of a part of an extendible exhaust nozzle bell of a rocket engine together with an extension mechanism in stowed position I according to a second exemplary embodiment of the invention;

Figures 4a, 4b, and 4c show three ~~Figs. 4a) through c) Three~~ different phases of the extension movement from the stowed position I into the operating position II for the first exemplary embodiment shown in Fig. 1 of the extendible exhaust nozzle bell according to the invention in a partially sectional side partial view; and

Figure 5 shows a ~~Fig. 5 —A~~ detailed representation of a locking device for locking both parts of the extendible exhaust nozzle bell of the first exemplary embodiment of the invention in the operating position II.

Please replace paragraph [0023] with the following amended paragraph:

[0023] In the exemplary embodiments of an extendible exhaust nozzle bell for a rocket engine of an aircraft or spacecraft shown in the figures, the reference number 11 is directed to a ~~means the~~ throat of ~~the~~ a combustion chamber of a motor (not shown) of a rocket engine for an aircraft or spacecraft. An exhaust nozzle bell labeled as a whole with the reference number 12 is arranged on the combustion chamber throat 11. The nozzle bell 12 ~~This~~ is used in a known manner to expand, in a controlled manner, the combustion gases streaming out backwards at a high speed from the combustion chamber throat 11 such that the speed of the combustion gases ~~their speed~~ is reduced to obtain a maximum impulse transmission to the aircraft or spacecraft for the purpose of its propulsion. To this end, a substantial expansion ratio is necessary between the cross section of the combustion chamber throat 11, from which the combustion gases enter the exhaust nozzle bell 12 at its front end, and the cross-sectional area of the rear opening of the exhaust nozzle bell 12, where the exhaust gases emerge. Allowing for an optimal curved shape of the exhaust nozzle bell 12, this means a considerable length of the same. To keep a ~~the~~ space required for the exhaust nozzle bell 12 within limits, the exhaust nozzle ~~this~~ is therefore provided in a

divided and extendible form. The exhaust nozzle bell 12 includes ~~namely comprises~~ a first part 13 fixedly arranged at the combustion chamber throat 11 and a second part 14 arranged in a flexible manner with respect to the first part 13 [[,]]. Each of the ~~which~~ parts respectively include ~~feature~~ a quasi-conical shape diverging to the rear with respect to the flight direction, as can be seen in particular from Figs. 1 and 4.

Please replace paragraph [0024] with the following amended paragraph:

[0024] In a front stowed position I that is shown respectively in Figs. 1a), 2, 3, and 4a), the second part 14 of the exhaust nozzle bell 12 surrounding the first part 13 of the exhaust nozzle bell 12 is located closer ~~nearer~~ to the rocket motor, thus further forward with respect to the flight direction, and in a rear operating position II that is shown in Figs. 1b), 4c) and 5, continuing the first part 13 of the exhaust nozzle bell 12 is arranged further away from the rocket motor, thus further back with respect to the flight direction. In this rear operating position II the second part 14 of the exhaust nozzle bell 12 can be firmly locked by ~~means of~~ a locking mechanism shown in Fig. 5 and labeled as a whole with the reference number 50.

Please replace paragraph [0027] with the following amended paragraph:

[0027] To swivel ~~in~~ the extension arms 15, a first activating device coupled to the extension arms 5 ~~them~~ is provided and to move the second part 14 of the

exhaust nozzle bell 12 from the stowed position I into the operating position II, a second activating device coupled therewith is provided.

Please replace paragraph [0029] with the following amended paragraph:

[0029] In the second exemplary embodiment of the exhaust nozzle bell according to the invention shown in Fig. 3, the first activating device provided for swiveling the extension arms 15 in turn contains an actuator 30, e.g., in the form of a stepping motor with a downstream planetary gearing, and a tension cable 32 coupled with the extension arm 15 for a swiveling movement of the same [[,]] ~~which~~. The tension cable contains a spring-loaded device 36 drawn up by the actuator 30 and acting on this against a swiveling of the extension arm 15. The rotation movement of the actuator 30 is transferred by ~~means of~~ a pivoted collecting ring 37 surrounding the first part 13 of the exhaust nozzle bell 12 in the circumferential direction, around which ring the tension cables 32 are placed and are changeable in their effective length during the rotation of the same.

Please replace paragraph [0031] with the following amended paragraph:

[0031] In the second exemplary embodiment shown in Fig. 3, tension cables 35 are provided with the collecting ring 37 and wound around the collecting ring 37 ~~same~~ and changeable in their effective length during rotation of the collecting ring 37 ~~same~~, preferably evenly distributed over the circumference of the exhaust nozzle bell 12. The [[,]] ~~which~~ tension cables are coupled on their free end with a

front area of the second part 14 of the exhaust nozzle bell 12. During the rotation of the collecting ring by ~~means of~~ the actuator 30 ~~on the one hand~~ a swiveling in of the extension arms 15 via the tension cable 32 is thus effected and ~~on the other hand~~ a translatory movement of the second part 14 of the exhaust nozzle bell 12 is effected via the tension cable 35. Here additional structure is ~~means are~~ also provided to synchronize the two mentioned movements with one another. The actuator 30 thus forms a central drive for the collecting ring 37. Preferably the actuator 30 is provided in a redundant manner.

Please replace paragraph [0034] with the following amended paragraph:

[0034] To lock the second part 14 of the exhaust nozzle bell 12 to the first part 13 in the extended operating position II, a locking device 50 shown in further detail in Fig. 5. The ~~is shown, which~~ locking device comprises a stop 51 provided on the second part 14 and a latch 52 provided on the first part 13. After the operating position II is reached, the stop 51 is locked by ~~means of~~ the latch 52, so that the second part 14 of the exhaust nozzle bell 12 is secured against a forward movement out of the operating position II, such as would be caused by the thrust of the emerging combustion gases.